ABSTRACT OF THE DISCLOSURE

METHOD AND APPARATUS FOR PROVIDING HARDWARE AWARE LOGICAL VOLUME MIRRORS

A method and apparatus for providing hardware aware logical volume mirrors are provided. In particular, the an improved logical volume system and method are provided in which a mirroring device driver is provided that selects a physical storage device from which data is to be read based on information obtained regarding the physical devices used in the mirror of the data. The mirroring device driver may be part of a logical volume device driver (LVDD), such that a modified LVDD is provided, or may work in concert with the logical volume device driver to achieve the purposes of the present invention. The information regarding the physical devices used in the mirror may include characteristic data of physical storage devices (e.g., whether a write cache is used, whether a read-ahead cache is used, RPM speed, connector type, etc.) and may also include operational history data. One or more rules are applied to this information to determine which physical storage device is an optimum storage device from which data is to be accessed.